

Any Dkt. No.: IRVN-0011DIV2
UJSSN: 09/875,823

LISTING OF THE CLAIMS

No claims are amended herein. The claims are provided below for the Examiner's convenience.

1. – 30. *(Canceled)*

31. *(Previously presented)* A method of stimulating an anti-tumor immune response or treating a neoplastic disease, comprising administering to a subject a composition comprising:
a cell expressing a cytokine from a recombinant polynucleotide,
wherein the cytokine is stably associated in the cell outer membrane,
and wherein the cell has been inactivated to prevent proliferation.
32. *(Previously presented)* The method of claim 31, wherein the cytokine is selected from IL-4, GM-CSF, IL-2, TNF- α , and M-CSF.
33. *(Previously presented)* The method of claim 31, wherein the cell is a cancer cell.
34. *(Previously presented)* The method of claim 31, wherein the cell is from a tumor of the same tissue type as a tumor in the subject.
35. *(Previously presented)* The method of claim 34, wherein the tumor is an ovarian cancer or a brain cancer.
36. *(Previously presented)* The method of claim 31, wherein the cell is allogeneic to the subject.
37. *(Previously presented)* The method of claim 31, wherein the cell is histocompatibly identical to the subject.

Atty Dkt. No.: IRVN-001DIV2
UISSN: 09/875,823

38. *(Previously presented)* The method of claim 31, wherein the composition further comprises a tumor-associated antigen, and wherein the combination of the cytokine and the tumor-associated antigen in the composition is effective in treating a neoplastic disease or eliciting an anti-tumor immunological response in the subject.
39. *(Previously presented)* The method of claim 38, wherein the tumor-associated antigen is obtained from a cell autologous to the subject.
40. *(Previously presented)* The method of claim 38, wherein the tumor-associated antigen is expressed by the same cells expressing the membrane-associated cytokine.
41. *(Previously presented)* The method of claim 38, wherein the composition comprises a combination of:
- a) the cell expressing the membrane-associated cytokine; and
 - b) a tumor cell autologous to the subject;
- wherein the combination is effective in treating a neoplastic disease or eliciting an anti-tumor immunological response in the subject.
42. *(Previously presented)* The method of claim 41, wherein the tumor cell is a primary tumor cell dispersed from a solid tumor obtained from the subject.
43. *(Previously presented)* The method of claim 41, wherein the tumor cell is a glioma, a glioblastoma, a gliosarcoma, an astrocytoma, or an ovarian cancer cell.
44. *(Previously presented)* The method of claim 41, wherein the tumor cell has been inactivated by irradiation.
45. *(Previously presented)* The method of claim 31, wherein the cell expressing the membrane-associated cytokine has been inactivated by irradiation.

Att. Dkt. No.: IRVN-0011DIV2
USSN: 09/875,823

46. *(Previously presented)* The method of claim 31, wherein the cell produces a secreted cytokine in addition to the cytokine stably associated in the outer membrane.
47. *(Previously presented)* The method of claim 31, wherein a majority of the cytokine produced by the cell is present on the outer membrane of the cell.
48. *(Previously presented)* The method of claim 38, wherein the cytokine is selected from IL-4, GM-CSF, IL-2, TNF- α , and M-CSF.
49. *(Previously presented)* The method of claim 31, wherein the composition comprises at least two cells, each of which has been genetically altered to produce a different cytokine at an elevated level, or is the progeny of such a cell, and wherein each cytokine is stably associated in the outer membrane of the cell.
50. *(Previously presented)* A method of stimulating an anti-tumor immune response or treating a neoplastic disease, comprising administering to a subject a composition comprising a tumor associated antigen and a population of cells expressing a transmembrane cytokine, wherein the cells have been inactivated to prevent proliferation, and a wherein the composition is effective in stimulating an immune response to the tumor associated antigen in the subject.
51. *(Previously presented)* The method of claim 31, wherein the cell is a human cell.
52. *(Previously presented)* The method of claim 31, wherein the cytokine naturally occurs as a membrane cytokine.
53. *(Previously presented)* The method of claim 31, wherein the cytokine is a fusion protein comprising a heterologous transmembrane region.

Atty Dkt. No.: HRVN-001DIV2
USSN: 09/875,823

54. *(Previously presented)* The method of claim 31, wherein the cell has been transduced with a retroviral expression vector, or is the progeny of such a cell.
55. *(Previously presented)* The method of claim 31, which is a method for priming an anti-tumor immune response.
56. *(Previously presented)* The method of claim 31, which is a method for boosting or maintaining an anti-tumor immune response.
57. *(Previously presented)* The method of claim 31, which is a method for treating a neoplastic disease.
58. *(Previously presented)* The method of claim 31, further comprising providing the cytokine expressing cell that is present in the composition.
59. *(Previously presented)* The method of claim 38, further comprising providing the tumor associated antigen that is present in the composition.
60. *(Previously presented)* The method of claim 31, further comprising transducing a cancer cell with an expression vector encoding the membrane-associated cytokine.
61. *(Previously presented)* The method of claim 31, wherein the cytokine is IL-4.
62. *(Previously presented)* The method of claim 31, wherein the cytokine is GM-CSF.
63. *(Previously presented)* The method of claim 31, wherein the cytokine is M-CSF.
64. *(Previously presented)* A method of stimulating an anti-tumor immune response or treating a neoplastic disease, comprising administering to a subject a composition containing an

Atty Dkt. No.: IRVN-001DIV2
U.S.S.N.: 09/875,823

allogeneic cell genetically altered to produce a cytokine at an elevated level, or the progeny of such a cell, wherein the cytokine is stably associated in the cell outer membrane.

65. *(Previously presented)* The method of claim 64, wherein the cytokine is selected from IL-4, GM-CSF, IL-2, TNF- α , and M-CSF.
66. *(Previously presented)* The method of claim 64, wherein the cell is from a tumor of the same tissue type as a tumor in the subject.
67. *(Previously presented)* The method of claim 64, wherein the composition further comprises a tumor-associated antigen, and wherein the combination of the cytokine and the tumor-associated antigen in the composition is effective in treating a neoplastic disease or eliciting an anti-tumor immunological response in the subject.
68. *(Previously presented)* The method of claim 67, wherein the tumor-associated antigen is obtained from a cell autologous to the subject.
69. *(Previously presented)* The method of claim 67, wherein the tumor-associated antigen is expressed by the same cells expressing the membrane-associated cytokine.
70. *(Previously presented)* The method of claim 67, wherein the composition comprises a combination of:
- a) the cell expressing the membrane-associated cytokine; and
 - b) a tumor cell autologous to the subject;
- wherein the combination is effective in treating a neoplastic disease or eliciting an anti-tumor immunological response in the subject.
71. *(Previously presented)* The method of claim 70, wherein the tumor cell is a primary tumor cell dispersed from a solid tumor obtained from the subject.

Att'y Dkt. No.: IRVN-001DIV2
USPN: 09/875,823

72. *(Previously presented)* The method of claim 64, wherein the cell expressing the membrane-associated cytokine has been inactivated to prevent proliferation.
73. *(Previously presented)* The method of claim 64, wherein the cell expressing the membrane-associated cytokine has been irradiated.
74. *(Previously presented)* The method of claim 64, wherein the cell is a human cell.
75. *(Previously presented)* The method of claim 64, wherein the cytokine naturally occurs as a membrane cytokine.
76. *(Previously presented)* The method of claim 64, wherein the cytokine is a fusion protein comprising a heterologous transmembrane region.
77. *(Previously presented)* The method of claim 64, which is a method for stimulating an immune response.
78. *(Previously presented)* The method of claim 64, which is a method for treating a neoplastic disease.